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Role Stressors and Technology Perceptions as Predictors of Employee Performance in Cirebon's Food and Beverage Industry

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Abstract

This study aims to examine the effect of role stressors and technology perceptions on employee performance in the food and beverage industry in Cirebon. A quantitative explanatory approach was employed using a cross-sectional survey. Data were collected from 271 initial responses, and 250 valid responses were retained after screening. The respondents were F&B employees who had worked for at least six months and used digital technology in their work activities. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results show that role stressors have a negative and significant effect on employee performance, while technology perceptions have a positive and significant effect. The model explains 42.1% of the variance in employee performance, indicating that role-related pressures and technology-related beliefs jointly contribute to performance outcomes. F&B managers should reduce role ambiguity, role conflict, and role overload by clarifying job responsibilities and improving coordination. They should also strengthen positive technology perceptions through practical training, user-friendly systems, and supportive digital work procedures.

Keywords: Role Stressors; Technology Perceptions; Employee Performance; Food and Beverage Industry; PLS-SEM

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

INTRODUCTION

The food and beverage (F&B) industry is a labor-intensive service sector that depends heavily on employee responsiveness, service accuracy, and the ability to adapt to operational changes. In contemporary F&B operations, employees are not only required to deliver direct customer service but also to interact with digital tools such as point-of-sale systems, online ordering platforms, delivery applications, inventory systems, and workplace communication media. This condition makes employee performance increasingly dependent on the interaction between human resource management practices and technology-supported work systems. Previous studies in hospitality and service contexts indicate that employee outcomes are shaped by organizational systems, motivation, job satisfaction, and the quality of work support provided by management (Dorta-Afonso et al., 2021). In the Indonesian F&B context, recent research also highlights that employees face dynamic working hours and demanding work arrangements that require adaptive human resource policies to maintain engagement and work-life balance (Kusumah & Negoro, 2025).

Despite the potential of the F&B sector, employee performance remains vulnerable to role-related pressures. Service employees often deal with multiple and simultaneous demands, such as serving customers, coordinating with kitchen staff, handling digital orders, and responding to supervisors' instructions within limited time. These conditions can create role stressors, especially role ambiguity, role conflict, and role overload. Role ambiguity occurs when employees do not clearly understand their duties, authority, or performance expectations, while role conflict arises when employees receive incompatible demands from different parties. In hospitality research, role-related stressors have been shown to affect employees' work attitudes and performance outcomes (Raub et al., 2021). Similar evidence indicates that role conflict and role ambiguity may reduce job performance and satisfaction in hotel employees (Unguren & Arslan, 2021), while role stress can also weaken creativity and customer-oriented behavior among frontline service employees (Chien et al., 2021). More recent hospitality research further suggests that unresolved role pressure may contribute to workplace deviance and disengagement among frontline employees (A. Wu & Wei, 2024).

At the same time, digital technology has become an important resource for improving work processes in service organizations. In the local SME context, Mahadianto et al. (2025) found that accounting information system utilization and system quality significantly influence business performance, indicating that

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

digital systems can support performance when they improve information quality and operational processes. Although their study focused on business performance rather than individual employee performance, the finding strengthens the argument that technology utilization is an important performance-related resource in Cirebon-based business settings. Technology Acceptance Model (TAM) explains that technology use is influenced by perceived usefulness and perceived ease of use, two beliefs that determine whether users consider a system beneficial and easy to operate (Davis, 1989). A recent meta-analysis of technology acceptance research confirms that technology acceptance remains a relevant stream of inquiry because user beliefs, technology characteristics, and application contexts continue to shape technology-related behavior (Marikyan et al., 2026). In the Indonesian workplace context, perceived usefulness and perceived ease of use have been empirically linked to employee engagement and performance in the use of WhatsApp as a work communication tool (Iswanto et al., 2021). Likewise, research on accounting information technology users shows that technology use can significantly affect employee performance when the technology fits task characteristics and supports work completion (Adyaksana et al., 2024).

However, the relationship between technology and employee performance is not always straightforward. Technology can function as an enabler when employees perceive it as useful, easy to use, and supportive of task completion, but it can also become a source of pressure when it increases cognitive load, speed demands, or digital interruptions. The technostress literature explains that technology may create both techno-distress and techno-eustress, depending on how employees evaluate technology-related demands (Tarafdar et al., 2019). In this regard, perceived usefulness and perceived ease of use may help employees interpret technology as a positive challenge rather than a burden, thereby strengthening work-related eustress and performance potential (Zielonka & Rothlauf, 2021). In smart hospitality settings, technology-related stress and digital support are increasingly relevant because service employees are expected to work efficiently while adapting to technology-enabled service systems (W. Wu et al., 2022). Recent research in Majapahit Journal of Islamic Finance and Management also supports the view that human resource information systems can enhance employee performance, particularly when digital implementation is linked to employee satisfaction and work support (Sari & Waskito, 2025).

Although previous studies have examined role stressors and technology acceptance in service and hospitality contexts, several gaps remain. First, much of the existing literature focuses on hotels, banking, public institutions, or general

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

technology users, whereas studies focusing specifically on F&B employees in local Indonesian contexts are still limited. Second, role stressors and technology perceptions are often examined separately, even though F&B employees may experience both conditions simultaneously in daily operations. Third, the Cirebon F&B context provides a relevant setting because local F&B businesses increasingly rely on digital tools while maintaining high-touch service interactions. Therefore, examining role stressors and technology perceptions in a single model can provide a more integrated understanding of employee performance in local service industries.

This study aims to analyze the effect of role stressors and technology perceptions on employee performance in the F&B industry in Cirebon. Specifically, this study examines whether role stressors negatively affect employee performance, whether technology perceptions positively affect employee performance, and whether both variables jointly explain variations in employee performance. The unit of analysis is F&B employees in Cirebon who use digital technology in their work activities. Theoretically, this study contributes to the integration of role stressor literature and technology acceptance perspectives in explaining employee performance. Practically, the findings are expected to help F&B owners and managers design clearer role structures, reduce conflicting work demands, and strengthen positive technology perceptions through training, user-friendly systems, and supportive work procedures. The remainder of this article is organized into literature review, research method, results and discussion, conclusion, and references.

LITERATURE REVIEW

Role Stressors and Employee Performance

Role stressors refer to work-related pressures that emerge when employees face unclear, conflicting, or excessive role demands. In service-based industries, especially food and beverage (F&B), employees frequently perform multiple functions at the same time, such as serving customers, coordinating orders, operating digital systems, and responding to supervisors' instructions. These overlapping demands may create role ambiguity, role conflict, and role overload. Role ambiguity occurs when employees do not clearly understand their responsibilities, authority, or work standards, while role conflict appears when employees receive incompatible expectations from different role senders. Role overload emerges when employees perceive that the number or intensity of tasks exceeds their available time, ability, or resources.

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

Previous hospitality studies consistently show that role-related pressures can weaken work outcomes. Raub et al. (2021) found that role-related stressors in hospitality organizations influence employees' attitudes and performance, particularly when employees lack adequate role orientation. Unguren & Arslan (2021) also showed that role ambiguity and role conflict are important stress factors that reduce job performance among hotel employees, partly through job satisfaction. Similarly, Chien et al. (2021) reported that role stress may reduce creativity and customer-oriented boundary-spanning behaviors among frontline service employees. These findings are relevant to F&B employees because customer-facing service work requires clarity, responsiveness, and coordination across operational functions.

Role stressors can also be understood as hindrance demands because they consume employees' cognitive and emotional resources without necessarily supporting task achievement. In high-pressure service settings, unclear instructions, conflicting expectations, and excessive workloads may reduce employees' ability to focus on service quality, accuracy, and timely task completion. Jin et al. (2021) found that role stress can reduce prosocial service behavior through lower job satisfaction, while A. Wu & Wei (2024) indicated that unresolved workplace pressures may trigger deviant work behavior and disengagement among frontline hospitality employees. Therefore, in the F&B context, role stressors are expected to have a negative effect on employee performance.

H1: Role stressors negatively affect employee performance.

Technology Perceptions and Employee Performance

Technology perception refers to employees' beliefs about the usefulness, ease of use, and continued relevance of digital tools in supporting their work. In F&B operations, technology is commonly used through point-of-sale systems, online ordering platforms, delivery applications, inventory systems, digital payment tools, and workplace communication platforms. These technologies can reduce errors, accelerate information flow, and improve service coordination when employees perceive them as beneficial and easy to use.

The Technology Acceptance Model (TAM) explains that user acceptance of technology is shaped mainly by perceived usefulness and perceived ease of use (Davis, 1989). Perceived usefulness reflects the extent to which employees believe that technology improves their work effectiveness, while perceived ease of use refers to the extent to which employees believe that technology can be used with minimal effort. TAM2 further explains that social influence and cognitive instrumental processes may shape perceived usefulness and technology usage

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

intention (Venkatesh & Davis, 2000). The Unified Theory of Acceptance and Use of Technology also emphasizes performance expectancy and effort expectancy as central determinants of technology acceptance and use behavior (Venkatesh et al., 2003). More recently, Marikyan et al. (2026) confirmed through meta-analysis that technology acceptance remains strongly influenced by user beliefs and contextual factors.

In organizational and service contexts, positive technology perceptions can contribute to employee performance by improving task efficiency and reducing unnecessary workload. Iswanto et al. (2021) found that perceived usefulness and perceived ease of use of WhatsApp were related to employee engagement and employee performance. Adyaksana et al. (2024) also showed that technology use can improve employee performance when technology characteristics and task characteristics are aligned. These findings suggest that technology is not merely an operational tool but also a work resource that can support employees' ability to complete tasks effectively.

Nevertheless, technology can generate different outcomes depending on how employees evaluate it. The technostress literature explains that technology may create techno-distress when it increases work pressure, but it may also produce techno-eustress when employees perceive technology-related demands as positive challenges (Tarafdar et al., 2019). Zielonka & Rothlauf (2021) found that perceived usefulness and perceived ease of use may increase the perception of work-related challenge stressors and eustress. In smart hospitality settings, technology-related demands are also associated with employee well-being and performance, especially when organizations provide adequate learning support (W. Wu et al., 2022). Therefore, when F&B employees perceive technology as useful and easy to operate, technology is expected to strengthen employee performance.

H2: Technology perceptions positively affect employee performance.

Employee Performance in the F&B Context

Employee performance refers to work behaviors and outcomes that contribute to organizational goals. It is not limited to task completion but also includes adaptability, service quality, cooperation, and contextual contribution. (Koopmans et al., 2014) explain that individual work performance can be understood through task performance, contextual performance, and counterproductive work behavior, while service and hospitality studies often emphasize quality of service, responsiveness, motivation, and customer-oriented behavior as important performance indicators. In the F&B industry, employee

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

performance can be observed through order accuracy, speed of service, teamwork, ability to handle peak hours, responsiveness to customer needs, and adaptability to technology-supported work processes.

Hospitality research indicates that performance is shaped by both work demands and organizational support. Dorta-Afonso et al. (2021) found that high-performance work systems influence hospitality employees' outcomes through organizational commitment, motivation, job satisfaction, and quality of life. Schwepker & Dimitriou (2021) also showed that reducing job stress and ethical ambiguity can improve performance quality among customer-contact hospitality employees.

In the Cirebon organizational context, Tasyana et al. (2025) also found that work-life balance and organizational culture positively and significantly influence employee performance. This finding strengthens the argument that employee performance is not only determined by individual capability, but also by the quality of work conditions, organizational support, and internal work systems surrounding employees.

These studies imply that employee performance in service industries depends on how organizations manage job demands and provide sufficient resources. In this study, role stressors represent psychological and operational demands, while technology perceptions represent employees' evaluation of digital tools as work-supporting resources.

Conceptual Framework and Hypothesis Development

This study integrates role stressor literature and technology acceptance perspectives to explain employee performance in Cirebon's F&B industry. Role stressors are expected to reduce employee performance because ambiguity, conflict, and overload may drain employees' attention, time, and emotional energy. Conversely, positive technology perceptions are expected to improve employee performance because perceived usefulness and ease of use may help employees complete tasks more efficiently and adapt to digital work processes.

The simultaneous presence of role stressors and technology perceptions is important in F&B work. Employees may experience pressure from unclear or conflicting duties, while also being required to use digital tools to complete service tasks. Therefore, employee performance is better understood by examining both negative role-related pressures and positive technology-related beliefs in a single model. The conceptual model proposes that role stressors and technology perceptions jointly explain variations in employee performance.

H3: Role stressors and technology perceptions jointly explain employee performance.

MJIFM | MAJAPAHIT JOURNAL OF ISLAMIC FINANCE AND MANAGEMENT
Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

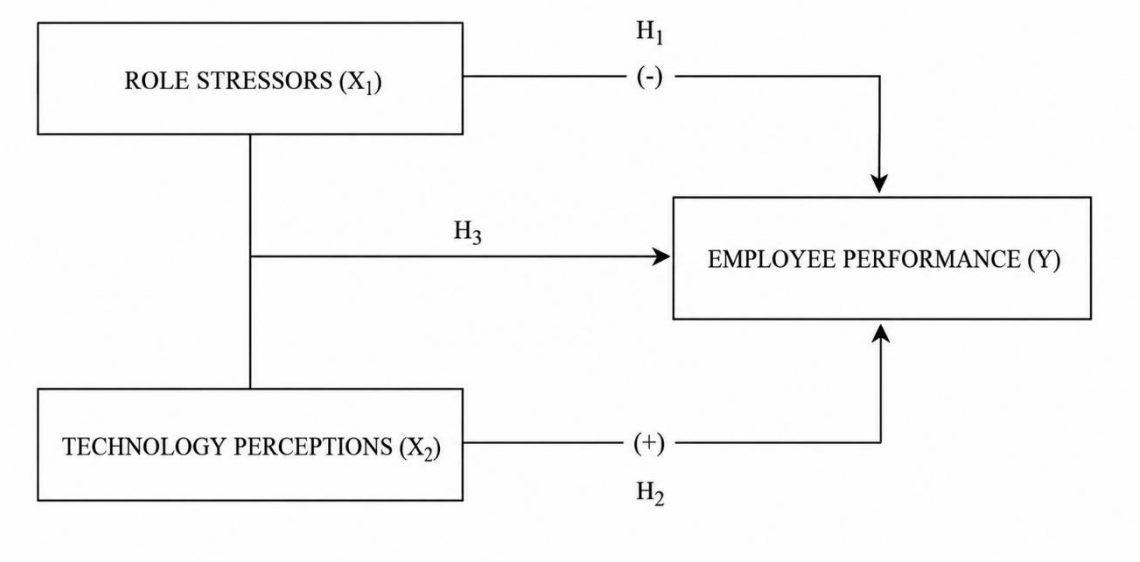


Figure 1.
Conceptual Framework

RESEARCH METHOD

This study employed a quantitative explanatory design using a cross-sectional survey approach. The quantitative design was selected because the study aimed to test the causal relationship between role stressors, technology perceptions, and employee performance using numerical data and statistical modeling. The research was conducted in the food and beverage (F&B) industry in Cirebon during the first semester of 2025. The population consisted of employees working in F&B businesses in Cirebon, including restaurants, cafés, food stalls, beverage outlets, and other food-service businesses that use digital technology in daily operations.

Because the population of F&B employees in Cirebon is dynamic and not precisely documented, this study used purposive sampling. The respondents were selected based on two criteria: first, they had worked in an F&B business for at least six months; second, they used digital technology in their work activities, such as point-of-sale systems, online ordering platforms, delivery applications, digital payment tools, or workplace communication platforms. The initial dataset consisted of 271 responses. After the screening process, 250 responses were retained as valid data for analysis. The number of valid responses was considered adequate for PLS-SEM analysis because it exceeded the minimum sample requirement and provided sufficient observations for estimating a model with 26 observed indicators (Hair et al., 2022).

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

Primary data were collected using a structured questionnaire. The questionnaire was designed to measure three main constructs: role stressors as the first independent variable, technology perceptions as the second independent variable, and employee performance as the dependent variable. All questionnaire items were measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The use of a Likert scale was appropriate because the study measured employee perceptions, attitudes, and self-reported work behavior in a standardized quantitative format (Likert, 1932).

Role stressors were measured through role ambiguity, role conflict, and role overload. These dimensions reflect unclear expectations, incompatible work demands, and excessive task pressure experienced by employees in service work. The measurement was adapted from role stressor literature and hospitality-based role stress studies (Raub et al., 2021; Rizzo et al., 1970; Unguren & Arslan, 2021). Technology perceptions were measured through perceived usefulness, perceived ease of use, and behavioral intention, which are consistent with the Technology Acceptance Model and technology acceptance literature (Davis, 1989; Venkatesh et al., 2003; Venkatesh & Davis, 2000). Employee performance was measured through task performance, adaptive performance, and contextual performance, reflecting the quality of task completion, adaptability to changing work situations, and positive contributions to the work environment (Koopmans et al., 2013, 2014). After data screening, one item from the role-overload dimension was not included in the final dataset; therefore, the final instrument consisted of 26 observed indicators.

Table 1.
Measurement of Variables

Construct	Dimension	Indicator Coverage	Main Source
Role Stressors (X1)	Role ambiguity	Unclear authority, uncertain task instructions, unclear work goals	Rizzo et al. (1970); Unguren & Arslan (2021)
Role Stressors (X1)	Role conflict	Conflicting requests, rule conflict, resource conflict	Rizzo et al. (1970); Raub et al. (2021)
Role Stressors (X1)	Role overload	Time pressure and excessive digital/workload demands	Raub et al. (2021); Unguren & Arslan (2021)

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

Technology Perceptions (X2)	Perceived usefulness	Faster task completion, higher effectiveness, general system usefulness	Davis (1989); Venkatesh & Davis (2000)
Technology Perceptions (X2)	Perceived ease of use	Ease of operating features, understandable interaction, ease of becoming skillful	Davis (1989); Venkatesh & Davis (2000)
Technology Perceptions (X2)	Behavioral intention	Continued use, recommendation to coworkers, willingness to use new features	Venkatesh et al. (2003)
Employee Performance (Y)	Task performance	Work quality, target achievement, service timeliness	Koopmans et al. (2013, 2014)
Employee Performance (Y)	Adaptive performance	Handling changes, effectiveness during peak hours, adjustment to new technology	Koopmans et al. (2013, 2014)
Employee Performance (Y)	Contextual performance	Work independence, teamwork, contribution to organizational goals	Koopmans et al. (2013, 2014)

The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS. PLS-SEM was selected because the study tested a predictive model involving latent constructs and multiple observed indicators. The analysis was conducted in two stages: measurement model evaluation and structural model evaluation. The measurement model was evaluated using outer loading, Cronbach's alpha, composite reliability, average variance extracted (AVE), and discriminant validity. Indicator loading values of 0.70 or higher were considered preferable, while AVE values above 0.50 indicated adequate convergent validity. Cronbach's alpha and composite reliability values above 0.70 indicated acceptable internal consistency reliability (Hair et al., 2022). Discriminant validity was assessed using the Heterotrait-Monotrait ratio (HTMT), with values below 0.85 indicating that the constructs were empirically distinct (Henseler et al., 2015). The Fornell-Larcker criterion was also considered as a complementary assessment of discriminant validity (Hair et al., 2022).

The structural model was evaluated using collinearity assessment, coefficient of determination, effect size, and hypothesis testing. Collinearity was

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

assessed using the variance inflation factor (VIF), with values below 5 indicating that multicollinearity did not bias the path estimates (Hair et al., 2022; Kock & Lynn, 2012). The coefficient of determination (R^2) was used to examine the explanatory power of role stressors and technology perceptions on employee performance. Effect size (f^2) was used to evaluate the relative contribution of each exogenous construct to the endogenous construct, using the general interpretation of small, medium, and large effects. Hypothesis testing was performed through the bootstrapping procedure. A hypothesis was considered supported when the path coefficient was in the expected direction and the p-value was below 0.05. Ethical considerations were maintained by informing respondents about the academic purpose of the study, ensuring voluntary participation, and protecting the confidentiality of respondents' identities and answers.

RESULTS AND DISCUSSION

Respondent Screening and Data Preparation

This section presents the empirical results of the study after correcting the respondent count and adjusting the analysis to the final valid dataset. The initial survey produced 271 responses from employees in the food and beverage (F&B) industry in Cirebon. After the screening process, 250 responses were retained for analysis. The screening criteria followed the research design: respondents had to work in an F&B business, had at least six months of work experience, and used digital technology in their work activities. The final dataset consisted of 26 observed indicators because Q08 was not available in the final respondent file. Therefore, the role-overload dimension was represented by Q07 and Q09, while the other dimensions retained three indicators each.

The use of 250 valid responses is considered adequate for PLS-SEM because the sample size exceeds the minimum requirement for estimating a model with two exogenous constructs and one endogenous construct. The analysis focused on the evaluation of the measurement model and the structural model, following the standard two-stage procedure in PLS-SEM (Hair et al., 2022).

Table 2.
Respondent Screening Results

Description	Number of Responses	Percentage
Initial responses	271	100.00%
Excluded responses after filtering	21	7.75%

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

Valid responses analyzed	250	92.25%

Source: Data processed (2025).

Descriptive Statistics

Descriptive statistics were calculated using the average scores of the observed indicators for each construct. The mean score of role stressors was 3.000, with a standard deviation of 1.222. Technology perceptions had a mean score of 3.000 and a standard deviation of 1.196. Employee performance also had a mean score of 3.000, with a standard deviation of 1.227. These results show that the responses were distributed around the midpoint of the five-point Likert scale, while the standard deviations indicate sufficient variation across respondents for further model testing.

Table 3.
Descriptive Statistics of Constructs

Construct	Mean	SD	Min	Max
Role Stressors (X1)	3.000	1.222	1.000	5.000
Technology Perceptions (X2)	3.000	1.196	1.000	5.000
Employee Performance (Y)	3.000	1.227	1.000	5.000

Source: Data processed (2025).

Measurement Model Evaluation

The measurement model was evaluated through indicator reliability, internal consistency reliability, and convergent validity. Indicator reliability was assessed using outer loading values. All indicators had loading values above 0.70, indicating that the indicators were sufficiently correlated with their respective constructs. The role stressors construct had loadings ranging from 0.837 to 0.888. Technology perceptions had loadings ranging from 0.823 to 0.860. Employee performance had loadings ranging from 0.847 to 0.886. These values support the retention of all indicators in the model.

Internal consistency reliability was assessed using Cronbachs alpha and composite reliability. All Cronbachs alpha values exceeded 0.70, with values of 0.951 for role stressors, 0.950 for technology perceptions, and 0.958 for employee performance. Composite reliability values were also above 0.70, with values of 0.959, 0.957, and 0.964, respectively. Convergent validity was evaluated using average variance extracted (AVE). All AVE values exceeded the recommended threshold of 0.50, indicating that each construct explained more than half of the variance of its indicators (Hair et al., 2022).

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

Table 4.
Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE	Loading Range	Decision
Role Stressors (X1)	0.951	0.959	0.745	0.837-0.888	Valid and reliable
Technology Perceptions (X2)	0.950	0.957	0.713	0.823-0.860	Valid and reliable
Employee Performance (Y)	0.958	0.964	0.750	0.847-0.886	Valid and reliable

Source: Data processed (2025).

Discriminant validity was assessed using the Heterotrait-Monotrait ratio (HTMT). The HTMT values were 0.057 for X1-X2, 0.423 for X1-Y, and 0.544 for X2-Y. All values were below the conservative threshold of 0.85, indicating that the constructs were empirically distinct (Henseler et al., 2015). The Fornell-Larcker criterion also supported discriminant validity because the square root of AVE for each construct was higher than its correlations with other constructs (Fornell & Larcker, 1981).

Table 5.
Discriminant Validity Based on HTMT

Construct Pair	HTMT Value	Threshold	Decision
X1-X2	0.057	<0.850	Accepted
X1-Y	0.423	<0.850	Accepted
X2-Y	0.544	<0.850	Accepted

Source: Data processed (2025).

Table 6.
Fornell-Larcker Criterion

Construct	X1	X2	Y
X1	0.863	-0.030	-0.404
X2	-0.030	0.844	0.520
Y	-0.404	0.520	0.866

Source: Data processed (2025). Diagonal values represent the square root of AVE.

Structural Model Evaluation

After the measurement model met the reliability and validity requirements, the structural model was evaluated through collinearity, coefficient of determination, effect size, and bootstrapping. The variance inflation factor (VIF) values for both structural paths were 1.001, which is far below the

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

threshold of 5. This indicates that role stressors and technology perceptions did not create multicollinearity problems in predicting employee performance (Hair et al., 2022).

The R-square value for employee performance was 0.421, while the adjusted R-square was 0.416. This means that role stressors and technology perceptions jointly explained 42.1% of the variance in employee performance. In behavioral and management research, this level of explanatory power can be interpreted as meaningful because employee performance is usually influenced by many psychological, organizational, and contextual factors. The remaining 57.9% may be explained by other variables such as leadership, job satisfaction, motivation, work discipline, organizational support, digital competence, or compensation.

Effect size was assessed using f-square. The f-square value for the effect of role stressors on employee performance was 0.261, which indicates a medium effect. Meanwhile, the f-square value for the effect of technology perceptions on employee performance was 0.445, which indicates a large effect according to Cohen (1988) criteria. These results show that technology perceptions had a stronger relative contribution to employee performance than role stressors, although both constructs contributed meaningfully to the model.

Table 7.
Structural Model Evaluation

Indicator	Value	Criterion	Interpretation
VIF X1 to Y	1.001	<5.000	No multicollinearity
VIF X2 to Y	1.001	<5.000	No multicollinearity
R-square Y	0.421	Higher value indicates stronger explanatory power	Moderate explanatory power
Adjusted R-square Y	0.416	Adjusted for number of predictors	Moderate explanatory power
f-square X1 to Y	0.261	0.02 small; 0.15 medium; 0.35 large	Medium effect
f-square X2 to Y	0.445	0.02 small; 0.15 medium; 0.35 large	Large effect

Source: Data processed (2025).

Hypothesis Testing

Hypothesis testing was performed through bootstrapping. A hypothesis was supported when the path coefficient followed the expected direction and the

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

p-value was below 0.05. The first hypothesis proposed that role stressors negatively affect employee performance. The result showed a negative and significant path coefficient (beta = -0.389; t = 8.209; p < 0.001), with a 95% confidence interval ranging from -0.481 to -0.295. Thus, H1 was supported. The second hypothesis proposed that technology perceptions positively affect employee performance. The result showed a positive and significant path coefficient (beta = 0.508; t = 10.749; p < 0.001), with a 95% confidence interval ranging from 0.413 to 0.597. Therefore, H2 was supported.

The third hypothesis proposed that role stressors and technology perceptions jointly explain employee performance. This hypothesis was evaluated through the R-square value of the endogenous construct and the significance of the structural paths. The model explained 42.1% of the variance in employee performance, while both direct effects were statistically significant. Therefore, H3 was supported. It should be noted that H3 is interpreted as a joint explanatory effect, not as a moderation effect. If future research intends to test whether technology perceptions weaken the negative impact of role stressors, an interaction term or moderation analysis should be added to the model.

Table 8.
Hypothesis Testing Results

Hypothesis	Path/ Assessment	Coefficient / R2	t-statistic	p-value	95% CI	Decision
H1	Role Stressors to Employee Performance	-0.389	8.209	<0.001	[-0.481; -0.295]	Supported
H2	Technology Perceptions to Employee Performance	0.508	10.749	<0.001	[0.413; 0.597]	Supported
H3	Joint explanatory effect on Employee Performance	R2 = 0.421	-	<0.001 based on significant structural paths	-	Supported

Source: Data processed (2025).

Discussion

The findings provide empirical support for the argument that employee performance in Cirebons F&B industry is shaped by both negative role-related pressures and positive technology-related perceptions. Role stressors had a negative and significant effect on employee performance. This means that

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

employees who experience higher role ambiguity, role conflict, and role overload tend to report lower performance. The result is consistent with hospitality research showing that role-related stressors reduce task performance and weaken employee attitudes at work (Raub et al., 2021). It also supports Unguren & Arslan (2021), who found that role ambiguity and role conflict reduce job performance in the hotel industry. In frontline service work, employees need clear instructions, consistent expectations, and sufficient resources to respond quickly and accurately to customers. When such clarity is absent, employees may spend more cognitive energy interpreting instructions or resolving conflicting demands, leaving fewer resources for service quality and task completion.

This finding can also be explained through the Job Demands-Resources perspective. Role stressors represent job demands that may become harmful when they are not balanced by adequate job resources. In F&B operations, unclear authority, inconsistent task assignments, and excessive workload can reduce employees ability to maintain service accuracy and emotional control during peak hours. This condition is especially important because F&B employees often work under time pressure and must coordinate multiple service processes simultaneously. Previous studies have shown that role stress may reduce customer-oriented behavior and prosocial service behavior among hospitality employees (Chien et al., 2021; Jin et al., 2021). The present finding extends this argument to the local F&B context in Cirebon, showing that role-related pressure remains a relevant predictor of employee performance outside the hotel setting.

Technology perceptions had a positive and significant effect on employee performance, with a larger effect size than role stressors. This result indicates that employees who perceive digital technology as useful, easy to operate, and worth using continuously tend to report better performance. This finding is consistent with the Technology Acceptance Model, which emphasizes perceived usefulness and perceived ease of use as core determinants of technology acceptance (Davis, 1989). In the F&B industry, technology can support work performance by accelerating order processing, reducing manual recording errors, improving coordination with delivery platforms, and making transaction data more accessible. When employees perceive technology as helpful rather than burdensome, they are more likely to use it effectively in their daily tasks.

The result is also in line with Iswanto et al. (2021), who found that perceived usefulness and perceived ease of use of WhatsApp were related to employee engagement and performance, and Adyaksana et al. (2024), who showed that technology acceptance contributes to employee performance. In the

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

context of technology-enabled hospitality work, technology does not automatically improve performance; its benefit depends on employees perceptions, usability, and organizational support. Tarafdar et al. (2019) explain that technology-related demands may create techno-distress or techno-eustress, depending on how employees appraise the technology. When technology is perceived as useful and easy to use, employees may experience it as a positive challenge that helps them work faster and more accurately Zielonka & Rothlauf (2021). This explains why technology perceptions became the strongest predictor in this model.

The joint explanatory power of role stressors and technology perceptions also offers an important managerial implication. The model explained 42.1% of employee performance, meaning that both psychological-role conditions and digital work perceptions are relevant to understanding performance in local F&B businesses. The negative effect of role stressors and the positive effect of technology perceptions suggest that performance improvement should not rely only on digitalization. F&B managers need to balance technology adoption with clear role design, adequate training, and consistent operational procedures. This view is consistent with research showing that human resource information systems can enhance employee performance when supported by job satisfaction and proper implementation (Sari & Waskito, 2025).

Practically, the findings suggest several actions for F&B owners and managers in Cirebon. First, managers should reduce role ambiguity by ensuring that employees understand their tasks, authority, and performance expectations before and during service hours. Second, role conflict can be reduced through clearer coordination between supervisors, kitchen teams, cashiers, service staff, and digital-order handlers. Third, role overload should be managed by adjusting staffing patterns during peak hours and simplifying digital procedures. Fourth, technology training should not only explain how to use a system but also demonstrate how the system improves speed, accuracy, and service quality. Fifth, digital tools should be evaluated from the users perspective so that they do not become an additional source of stress.

The study also has limitations that should be considered. The data were collected through a cross-sectional survey, so causal interpretation should be made carefully. The measurement relied on self-reported responses, which may contain common method bias. In addition, the model did not test mediation or moderation mechanisms. Future studies may examine job satisfaction, burnout, organizational support, or digital competence as mediating or moderating variables. Future research may also test whether technology perceptions

Vol. 6 No. 2, 2026, 6384–6404 e-ISSN 2798-0170

moderate the negative relationship between role stressors and employee performance. Such analysis would provide a more direct answer to whether positive technology perceptions can mitigate the harmful effect of role pressure in F&B workplaces.

CONCLUSION

This study examined the effect of role stressors and technology perceptions on employee performance in Cirebon's food and beverage industry. Based on 250 valid responses analyzed using PLS-SEM, the findings show that role stressors have a negative and significant effect on employee performance. This means that unclear responsibilities, conflicting work demands, and excessive workload may reduce employees' focus, service accuracy, adaptability, and overall work performance.

The study also found that technology perceptions have a positive and significant effect on employee performance. Employees who perceive digital technology as useful, easy to operate, and relevant for continuous use tend to perform better. In the F&B context, technology can support performance by improving service speed, reducing operational errors, strengthening coordination, and helping employees adapt to technology-based work processes.

The model explains 42.1% of the variance in employee performance, indicating that both role-related pressures and technology-related beliefs are important predictors of performance. These findings suggest that performance improvement should not rely only on digitalization, but also on clearer job design, consistent work instructions, balanced workload distribution, and managerial support.

Practically, F&B managers in Cirebon should reduce role stressors by clarifying job descriptions, improving coordination, and managing workload during peak hours. At the same time, they should strengthen positive technology perceptions through simple training, user-friendly systems, and supportive digital procedures. Future studies may extend this model by examining job satisfaction, burnout, organizational support, leadership, digital competence, or technostress as mediating or moderating variables.

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